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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,626	07/16/2003	Junichi Takeuchi	040405-0363	7292

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FOLEY AND LARDNER LLP
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EXAMINER

FERNANDEZ RIVAS, OMAR F

ART UNIT	PAPER NUMBER
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2129

MAIL DATE	DELIVERY MODE
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05/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/619,626	Applicant(s) TAKEUCHI ET AL.	
	Examiner Omar F. Fernández Rivas	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-6,8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-6,8 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>A1, A2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an RCE filed on January 22, 2007.
2. The Office Actions of November 14, 2005, and May 22, 2006 are incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 2 and 10 have been amended. Claims 1, 3, 7 and 9 have been cancelled. Claims 2, 4-6, 8 and 10-13 are pending on this application.

Claim Rejections - 35 USC § 112

4. In light of the amendments made on claims 4 and 10, the rejection under 35 USC 112 is withdrawn.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 2, 4-6, 8 and 10-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not seem to require any hardware to perform their function. As such, the claims appear to be a system of software per se and are therefore non-statutory. A claim that recites a piece of software alone without any link to a hardware component is directed to non-statutory subject matter since there is no relationship between the computer software and hardware components which permits the functionality of the software to be realized.

The specification does not provide any disclosure to hardware components to support that the invention includes any hardware to produce its functions.

Claim 2 describes an outlier and change point **device** and a first and second learning **device**. However, there is nothing in the claim or in the specification that defines these devices, or any of the other components describes, as being hardware or being linked to hardware. As such, this device can be considered a software program per se and is therefore non-statutory (IEEE definition for device: (software) a mechanism or piece of equipment design to serve a purpose or perform a function). Claims 4-6 further limit claim 2 and are rejected on the same basis.

Claims 8 and 10-13 recite subject matter similar to that of claims 2 and 4-6 and are rejected on the same basis. The Examiner notes that claim 8 describes a method. However, since there is nothing in the specification that describes any hardware for performing the method, the method can be considered to be software per se and is therefore non-statutory.

Claim Rejections - 35 USC § 102

6. The arguments presented by the Applicant regarding the rejection under 35 USC 102(b) have been fully considered and are persuasive. The rejection under 35 USC 102(b) is withdrawn.

Claim Rejections - 35 USC § 103

7. The arguments presented by the Applicant regarding the rejection under 35 USC 103 have been fully considered and are persuasive. The rejection under 35 USC 103 is withdrawn.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Li et al. "GPS Time Series Modeling by Autoregressive Moving Average Method Application to the Crustal Deformation in Central Japan", The Society of Geomagnetism and Earth, Planetary and Space Sciences, 2000, pages 155-162.

Biliris et al. US Patent #6,055,491

9. Claims 2, 4-6, 8 and 10-13 are rejected.

Correspondence Information

10. Any inquires concerning this communication or earlier communications from the examiner should be directed to Omar F. Fernández Rivas, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-2589 or email omar.fernandezrivas@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, David Vincent, may be reached at (571) 272-3080.


Art Unit: 2129

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Omar F. Fernández Rivas
Patent Examiner
Artificial Intelligence Art Unit 2129
United States Department of Commerce
Patent & Trademark Office

Thursday, April 05, 2007

OFR


JOSEPH P HIRL
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100